

# SEQUENCE LISTING

<110> James Karras  
Erich Koller

<120> ANTISENSE MODULATION OF TOLL-LIKE RECEPTOR 4 EXPRESSION

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gggagccctg cgtggagact tggccctaaa ccacacagaa gagctggcat gaaaccaga 180  
gctttcagac tccggagcct cagcccttca ccccgattcc attgcttctt gctaaatgct 240  
gccgttttat cacggaggtg gttcctaata ttacttatca atgc atg gag ctg aat 296

Met Glu Leu Asn

1

ttc tac aaa atc ccc gac aac ctc ccc ttc tca acc aag aac ctg gac 344  
Phe Tyr Lys Ile Pro Asp Asn Leu Pro Phe Ser Thr Lys Asn Leu Asp

5

10

15

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Leu	Ser	Phe	Asn	Pro	Leu	Arg	His	Leu	Gly	Ser	Tyr	Ser	Phe	Phe	Ser	
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ttc	cca	gaa	ctg	cag	gtg	ctg	gat	tta	tcc	agg	tgt	gaa	atc	cag	aca	440
Phe	Pro	Glu	Leu	Gln	Val	Leu	Asp	Leu	Ser	Arg	Cys	Glu	Ile	Gln	Thr	
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att	gaa	gat	ggg	gca	tat	cag	agc	cta	agc	cac	ctc	tct	acc	tta	ata	488
Ile	Glu	Asp	Gly	Ala	Tyr	Gln	Ser	Leu	Ser	His	Leu	Ser	Thr	Leu	Ile	
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Leu	Thr	Gly	Asn	Pro	Ile	Gln	Ser	Leu	Ala	Leu	Gly	Ala	Phe	Ser	Gly	
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cta	tca	agt	tta	cag	aag	ctg	gtg	gct	gtg	gag	aca	aat	cta	gca	tct	584
Leu	Ser	Ser	Leu	Gln	Lys	Leu	Val	Ala	Val	Glu	Thr	Asn	Leu	Ala	Ser	
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cta	gag	aac	ttc	ccc	att	gga	cat	ctc	aaa	act	ttg	aaa	gaa	ctt	aat	632
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Ser	Ile	Tyr	Cys	Thr	Asp	Leu	Arg	Val	Leu	His	Gln	Met	Pro	Leu	Leu	
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Gly	Ala	Phe	Lys	Glu	Ile	Arg	Leu	His	Lys	Leu	Thr	Leu	Arg	Asn	Asn	
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Phe	Asp	Ser	Leu	Asn	Val	Met	Lys	Thr	Cys	Ile	Gln	Gly	Leu	Ala	Gly	
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tta	gaa	gtc	cat	cgt	ttg	gtt	ctg	gga	gaa	ttt	aga	aat	gaa	gga	aac	968
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Ile Asp Leu Phe Asn Cys Leu Thr Asn Val Ser Ser Phe Ser Leu Val		265		270		275	
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Ser Val Thr Ile Glu Arg Val Lys Asp Phe Ser Tyr Asn Phe Gly Trp		280		285		290	
caa cat tta gaa tta gtt aac tgt aaa ttt gga cag ttt ccc aca ttg	1208						
Gln His Leu Glu Leu Val Asn Cys Lys Phe Gly Gln Phe Pro Thr Leu		295		300		305	
aaa ctc aaa tct ctc aaa agg ctt act ttc act tcc aac aaa ggt ggg	1256						
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Asn Ala Phe Ser Glu Val Asp Leu Pro Ser Leu Glu Phe Leu Asp Leu		325		330		335	340
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Ser Arg Asn Gly Leu Ser Phe Lys Gly Cys Cys Ser Gln Ser Asp Phe		345		350		355	
ggg aca acc agc cta aag tat tta gat ctg agc ttc aat ggt gtt att	1400						
Gly Thr Thr Ser Leu Lys Tyr Leu Asp Leu Ser Phe Asn Gly Val Ile		360		365		370	
acc atg agt tca aac ttc ttg ggc tta gaa caa cta gaa cat ctg gat	1448						
Thr Met Ser Ser Asn Phe Leu Gly Leu Glu Gln Leu Glu His Leu Asp		375		380		385	
ttc cag cat tcc aat ttg aaa caa atg agt gag ttt tca gta ttc cta	1496						
Phe Gln His Ser Asn Leu Lys Gln Met Ser Glu Phe Ser Val Phe Leu		390		395		400	
tca ctc aga aac ctc att tac ctt gac att tct cat act cac acc aga	1544						
Ser Leu Arg Asn Leu Ile Tyr Leu Asp Ile Ser His Thr His Thr Arg		405		410		415	420
gtt gct ttc aat ggc atc ttc aat ggc ttg tcc agt ctc gaa gtc ttg	1592						
Val Ala Phe Asn Gly Ile Phe Asn Gly Leu Ser Ser Leu Glu Val Leu		425		430		435	
aaa atg gct ggc aat tct ttc cag gaa aac ttc ctt cca gat atc ttc	1640						
Lys Met Ala Gly Asn Ser Phe Gln Glu Asn Phe Leu Pro Asp Ile Phe		440		445		450	
aca gag ctg aga aac ttg acc ttc ctg gac ctc tct cag tgt caa ctg	1688						
Thr Glu Leu Arg Asn Leu Thr Phe Leu Asp Leu Ser Gln Cys Gln Leu		455		460		465	
gag cag ttg tct cca aca gca ttt aac tca ctc tcc agt ctt cag gta	1736						
Glu Gln Leu Ser Pro Thr Ala Phe Asn Ser Leu Ser Ser Leu Gln Val		470		475		480	
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1688  
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1784

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atg Met	act Thr	tcc Ser	aaa Lys	aaa Lys	cag Gln	gaa Glu	cta Leu	cag Gln	cat His	ttt Phe	cca Pro	agt Ser	agt Ser	cta Leu	gct Ala	1880
ttc Phe	tta Leu	aat Asn	ctt Leu	act Thr	cag Gln	aat Asn	gac Asp	ttt Phe	gct Ala	tgt Cys	act Thr	tgt Cys	gaa Glu	cac His	cag Gln	1928
agt Ser	ttc Phe	ctg Leu	caa Gln	tgg Trp	atc Ile	aag Lys	gac Asp	cag Gln	agg Arg	cag Gln	ctc Leu	ttg Leu	gtg Val	gaa Glu	gtt Val	1976
gaa Glu	cga Arg	atg Met	gaa Glu	tgt Cys	gca Ala	aca Thr	cct Pro	tca Ser	gat Asp	aag Lys	cag Gln	ggc Gly	atg Met	cct Pro	gtg Val	2024
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aga Arg	ggg Gly	gaa Glu	aac Asn	atc Ile	tat Tyr	gat Asp	gcc Ala	ttt Phe	gtt Val	atc Ile	tac Tyr	tca Ser	agc Ser	cag Gln	gat Asp	2216
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cct Pro	cca Pro	ttt Phe	cag Gln	ctc Leu	tgc Cys	ctt Leu	cac His	tac Tyr	aga Arg	gac Asp	ttt Phe	att Ile	ccc Pro	ggg Gly	gtg Val	2312
gcc Ala	att Ile	gct Ala	gcc Ala	aac Asn	atc Ile	atc Ile	cat His	gaa Glu	ggg Gly	ttc Phe	cat His	aaa Lys	agc Ser	cga Arg	aag Lys	2360
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**i**

20

Species	Age	Sex	Weight (g)	Length (mm)	Wing (mm)	Tail (mm)	Culmen (mm)	Bill (mm)	Foot (mm)	Middle toe (mm)	Claw (mm)
Male	1	♂	100	150	60	40	10	15	10	10	5
Female	1	♀	80	140	55	35	8	12	8	8	4
Male	2	♂	120	160	65	45	12	18	12	12	6
Female	2	♀	90	150	60	40	10	15	10	10	5
Male	3	♂	150	180	75	55	15	22	15	15	8
Female	3	♀	110	165	65	45	12	18	12	12	6
Male	4	♂	180	200	85	65	18	28	18	18	10
Female	4	♀	130	180	75	55	15	22	15	15	8
Male	5	♂	200	220	95	75	20	32	20	20	12
Female	5	♀	150	200	85	65	18	28	18	18	10